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## MICHAEL S. MARKS

### President

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Mr. Marks has 35 years of project management, technical analysis, management consulting, and decision-making experience in the electric and gas utility industries. His specializations are in the areas of demand side management program (DSM) planning, design, implementation, evaluation and regulatory compliance; statistical analysis; load forecasting; strategic issues consulting; and comparative economic studies.

Over the course of his consulting career, he has provided overall project management for many of AEG's largest consulting contracts including multi-million dollar projects and service to over 50 electric and gas utility clients, many of which have utilized his services for multiple projects on a long-term basis. Mr. Marks played a significant role in the development of energy efficiency and demand response portfolios for many of AEG's clients including the New York Power Authority, Integrys, Black Hills, Long Island Power Authority and Con Edison of New York. Mr. Marks has helped develop energy efficient policy for governmental agencies and utilities in New York, Illinois, Minnesota, Missouri and Michigan. He has also provided consulting services internationally in Canada, South Africa, Bermuda, and Thailand.

He has testified as an expert witness, developed strategies and cross examination, and supported other witnesses in numerous regulatory proceedings. He has authored articles and delivered presentations on emerging utility-related issues in various industry conferences, and his education includes an M.A. in Applied Economics with advanced course work in reengineering, statistics, forecasting, energy services, and computer science.

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## PROFESSIONAL BACKGROUND

<b>Applied Energy Group</b>	1982 - Present
<b>Stone &amp; Webster Management Consultants, Inc.</b>	1980 - 1981
<b>American Electric Power Service Corporation</b>	1979 - 1980

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## CURRENT POSITION

Since 2004, Mr. Marks has been the President of AEG, a management consulting firm that serves the needs of the utility industries primarily in the areas of energy services, strategic planning, diversification studies, forecasting, innovative rate designs, customer service, reengineering, and business plan development. In 2011, AEG was acquired by Ameresco, and operates as its own division within Ameresco.

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## CONSULTING EXPERIENCE

### Business Operations

#### **Berkshire Gas**

- Developed econometric sales forecasts by rate class to support regulatory filings.
- Provided design day, design year, and cold snap analysis.

#### **Connecticut Natural Gas** (*ongoing*)

- Provides econometric sales forecasts by rate class including the development of econometric annual gas sales and customer forecasts by class for resource planning and rate cases.
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- Develops a separate regression based peak day analysis

**Southern Connecticut Gas** (*ongoing*)

- Provides econometric sales forecasts by rate class including the development of econometric annual gas sales and customer forecasts by class for resource planning and rate cases.
- Develops a separate regression based peak day analysis.

**Bermuda Electric Company**

- Developed annual econometric load forecasts for each class of service. Separate models were developed for customers and use per customer by service class.
- Created a peak demand forecast for both summer and winter peaks.

**El Paso Electric Company (EPEC)**

- Developed a business unit dedicated to key customer retention. The goal of this business unit is to develop innovative long-term rate contracts for many of EPE's key customers.
- Designed time-of-use rate design, indexing, marginal cost pricing, load factor targeting and other rate strategies.
- As Project Manager, negotiated and developed long term contracts directly with key customers on EPE's behalf.

**Other projects for following clients:**

New York Power Authority (NYPA)	NYNEX Corporation
Consolidated Edison Company of New York, Inc.	Orange & Rockland Utilities
CINergy	Saudi Arabia
Day and Zimmerman, Inc.	South Carolina Pipeline Corporation
Electric Generating Authority of Thailand (EGAT)	The Village of Rockville Centre
Freeport Electric	Vanceburg Electric Light Heat & Power
Iowa Power Company	Vermont Gas
Kansas City Power and Light Co. (KCP&L)	Wellesley Municipal Light Plant
Kansas Gas and Electric Co. (KG&E)	Western Resources
Long Island Lighting Company (LILCO)	
Minnegasco	

## **Program Design and Implementation Services**

**Peoples and North Shore Gas** (*ongoing*)

- Developed the first two 3-year energy efficiency plans in accordance with Illinois Senate Bill 1918.
- Provided expert testimony and regulatory support for both Plan 1 and Plan 2.
- Participated in numerous stakeholder meetings.

**Black Hills Power**

- Developed a DSM portfolio based on achievable potential using primary and secondary data sources for the Company's Colorado electric utility in Pueblo.
- Provided DSM inputs for the Integrated Resource Plan.

**Iberdrola USA**

- Develops a gas and electric DSM portfolio (for NYSEG and RG&E) based on achievable potential using primary and secondary data sources for this large upstate New York combination utility.

**Minnesota Energy Resources** (*ongoing*)

- Developed of MERC's Conservation Improvement Program (CIP) filings.
- Coordination with utility and public utility regulatory staff.

**Consolidated Edison Company of New York, Inc.**

- Provided turn-key project management, evaluation, customer service and regulatory support for over 30,000 Con Edison's residential and small commercial customers for a direct load control programs.

**Empire District**

- Retained by a Collaborated to develop a comprehensive electric DSM portfolio based on achievable potential using primary and secondary data sources for this Missouri electric utility.
- Provided all DSM inputs for an integrated Resource Plan.

**Kansas City Power & Light**

- Developed a DSM portfolio based on achievable potential using primary and secondary data sources for this Missouri and Kansas electric utility.
- Provided all DSM inputs for an integrated Resource Plan.

**Laclede Gas**

- Was retained by a Collaborative to develop a comprehensive gas DSM portfolio based on achievable potential using primary and secondary data sources for this large Missouri gas utility.

**Long Island Power Authority (LIPA)**

- Provide planning and program design services for a \$90 million annual efficiency and renewal program portfolio.
- Provided technical and project management support for LIPAEedge, a DLC program with over 25,000 customers with controlled air conditioning systems.

**Midwest Energy**

- Developed a technical, economic and achievable potential study using primary and secondary data sources for this Kansas Cooperative.

**New York Power Authority (NYPA)**

- Worked as a full-time staff member over a two year period in a management role in NYPA's DSM group on a \$100 million dollar program which included a turnkey lighting retrofit program for large commercial and institutional customers throughout New York State. Responsibilities included program design, customer interface and supervision of all contractors. This program was and continues to be one of the largest DSM programs offered by a public authority in the United States.

**Sunflower Electric**

- Developed a DSM portfolio based on achievable potential using primary and secondary data sources for this large Kansas Cooperative

**Other projects for following clients:**

Atlanta Gas Light Company (AGLC)  
 Bermuda Electric Light Company Ltd. (BELCO)  
 Detroit Edison Company  
 Iowa Power Company

Long Island Lighting Company  
 New York State Electric and Gas Corp.  
 Rochester Gas & Electric Corp.  
 Western Kentucky Gas

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## EXPERT TESTIMONY & REGULATORY SUPPORT ASSIGNMENTS

Mr. Marks served as a member on a number of panels which testified before the Department of Public Utility Control with responsibilities related to econometric forecasts that he prepared in support of specific rate cases for different utilities. He assisted in the preparation of direct testimony, rebuttal testimony, and cross-examination. In addition, he has performed statistical analysis in support of testimony.

**Expert Testimony & Regulatory Support given to the following utilities:**

**Peoples Gas and North Shore Gas Companies** – Presented direct and rebuttal testimony in Docket No. 13-0568 on the Triennial Energy Efficiency Program Plan covering PY 1 - 3. Presented direct and rebuttal testimony in Docket No. 13-0550 on the Second Triennial Energy Efficiency Program Plan covering PY 4 - 6.

***Berkshire Gas Company*** - Testified in 2002, 2005 and again in 2008 before the Massachusetts DTE on behalf of the Berkshire Gas Company in D.T.E. 02-17 and D.T.E. 05-7 (2005).

***Connecticut Natural Gas Corporation Docket No. 99-09-03*** – Was a member of a panel, which filed testimony and before the Department of Public Utility Control in the 2000, 2006, 2009, 2012 and 2015 rate cases. Mr. Marks was specifically responsible for all issues related to an econometric forecast that he prepared in support of the rate case.

***Kansas City Power and Light Company/Kansas Docket #84-KG&E-197-R-142, 098-U / Missouri Docket #ER-85-128, EO-85-185*** – Provided rebuttal testimony in the Wolf Creek Nuclear Plant rate case regarding forecasting related issues on behalf of KCP&L in both Kansas and Missouri.

***Southern Connecticut Gas*** – Was a member of a panel, which filed testimony and before the Department of Public Utility Control in the 2012 and 2015 rate cases. Mr. Marks was specifically responsible for all issues related to an econometric forecast that he prepared in support of the rate case.

***South Carolina Pipeline*** – Prepared direct testimony on a five-year load forecast which was performed in support of the Company's first IRP.

***El Paso Electric Company*** – Testified on behalf of El Paso Electric Company on the issues of load forecasting in Case No. 7460.

***Texas Utilities*** – Provided consulting services to Texas Utilities during the Comanche Peak Unit 1 and Unit 2 Rate Cases on the issues of need to build and prudence. He assisted in the preparation of testimony on the issue of nuclear performance standards. Managed the effort and wrote a comprehensive report entitled "The Lignite Utilization Report". This report covered TU's history regarding the use of lignite as a generating fuel, including exploration, acquisition criteria, recovery and generation.

Mr. Marks provided assistance in Unit 2 rate case including review of intervenor testimony regarding performance standards. He provided analysis used in Company testimony regarding the bias of the performance standards testimony being recommended by the intervenor.

***Empire District Electric Company*** – Assisted in the preparation of testimony on the issue of weather normalization of energy sales in Case No. ER-90-138.

***New Jersey Gas Utilities*** – Provided direct and rebuttal testimony and cross-examination in a joint filing for three natural gas utilities (New Jersey Natural Gas Company, Elizabethtown Gas Company and South Jersey Gas Co.) in 1999 state-wide proceeding before the NJ Board of Public Utilities on "Comprehensive Resource Analysis of Energy Programs" (Docket Nos. EX99050347, GO99050353, GO99050354, and GO99050352).

***Missouri Public Service*** – Assisted in the preparation of testimony of the issue of weather normalization of energy sales in Case No. ER-90-101.

***Commonwealth Of Kentucky - Case No. 99-070*** – Western Kentucky Gas Company - Provided expert testimony on behalf of Western Kentucky Gas as part of a rate case. Testimony focused on past and future cost recovery for a low income DSM program.

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## AFFILIATIONS

International Institute of Forecasters	The Association of Energy Engineers
Association of Energy Services Professionals (AESP)	ASHRAE

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## ARTICLES & PUBLICATIONS

“Have the Inmates Taken Over the Asylum?” – presentation at the 2010 AESP National Conference.

“Load Management Panel” – presentation at the 2005 Itron Users Conference.

“Results from Con Edison’s Small Business DLC Pilot” – presentation at the ALCA 2005 Spring Conference.

“Energy Management Solutions” – presentation at the 2004 Itron Users Conference.

“Small Commercial Customer Direct Load Control - It Works and It’s Cost Effective” – presentation at the 14th National Energy Services Conference & Exposition in 2003.

“LIPA Air Conditioning Direct Load Control Program” – presentation at NYSERDA’s Price-Responsive Load Management conference in March, 2001.

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## EDUCATION

State University of New York at Binghamton, M.A., Applied Economics, 1979

State University College of New York at Oswego, B.S., Mathematical Economics, 1977

### Academic Honors

Fellowship, SUNY Binghamton

### Advanced Education

- “Certificate of Mastery” in Reengineering from the Hammer Institute’s Center for Reengineering Leadership.
- Seminar in Box-Jenkins Time Series Analysis equivalent to the one-semester graduate level course.
- Seminar on Lighting Design (Efficient Lighting Solutions)
- Market training for the New York ISO.